JOTE Journal of Occupational Therapy Education

Volume 1 | Issue 3 Article 2

January 2017

The Impact of Instructional Method on the Application of Kinesio Taping® Techniques for Occupational Therapy Students

Theresa Rice
Texas Woman's University

Husny Amerih
Texas Woman's University

Diane Brown
Texas Woman's University

Recommended Citation

Rice, T., Amerih, H., & Brown, D. (2017). The Impact of Instructional Method on the Application of Kinesio Taping® Techniques for Occupational Therapy Students. *Journal of Occupational Therapy Education, 1* (3). https://doi.org/10.26681/jote.2017.010302

The Impact of Instructional Method on the Application of Kinesio Taping® Techniques for Occupational Therapy Students

Abstract

This research utilized a crossover study design to analyze the differences in learner satisfaction, confidence, and accuracy when comparing in-person, video, and written instructional methods. The study was conducted on a group of 32 occupational therapy students from a local university by teaching them two different Kinesio Taping® protocols. Satisfaction and confidence were measured by survey. The participants completed tapings, then were rated by an instructor to obtain accuracy data. The study found that learning satisfaction was rated higher following video instruction. Regarding confidence, there was a statistically significant difference in the level of confidence for students viewing video instruction for one of two taping techniques presented. No significant difference was found between groups in accuracy in taping after different instructional methods. The use of multiple instructional methods was reported as the most beneficial and preferred method in the study. This study highlights the potential benefits of utilizing multiple instructional methods to aid in student learning.

Keywords

Instructional methods, clinical skill, Kinesio Tape®

Acknowledgements

Acknowledgement and thanks to Dr. Wang for her statistical support.

JOTE
Journal of Occupational Therapy Education

Volume 1, Issue 3

The Impact of Instructional Method on the Application of Kinesio Taping® Techniques for Occupational Therapy Students

Theresa Rice, OTR, OTD, CKTP

Husny Amerih, OTR, PhD, ATP, CKTI

Diane P. Brown, OTR, PhD

Texas Woman's University

United States

ABSTRACT

This research utilized a crossover study design to analyze the differences in learner satisfaction, confidence, and accuracy when comparing in-person, video, and written instructional methods. The study was conducted on a group of 32 occupational therapy students from a local university by teaching them two different Kinesio Taping® protocols. Satisfaction and confidence were measured by survey. The participants completed tapings, then were rated by an instructor to obtain accuracy data. The study found that learning satisfaction was rated higher following video instruction. Regarding confidence, there was a statistically significant difference in the level of confidence for students viewing video instruction for one of two taping techniques presented. No significant difference was found between groups in accuracy in taping after different instructional methods. The use of multiple instructional methods was reported as the most beneficial and preferred method in the study. This study highlights the potential benefits of utilizing multiple instructional methods to aid in student learning.

INTRODUCTION

There are numerous instructional methods utilized for adult learners in classroom settings. As the resources to produce content become more readily available, video instruction has gained in popularity as an educational aid. Research within the health sciences has indicated positive findings regarding the supplementary use of video instruction for learning clinical skills (McAlister, 2014; Mehrpour, Aghamirsalim, Motamedi, Larijani, & Sorbi, 2013). One positive finding includes increased confidence in completing the learned clinical task (McAlister, 2014; Pan et al., 2014). Additionally, research by Mehrpour et al. (2013) and Pan et al. (2014) found scores were higher for

participants receiving add-on video instruction in combination with in-person instruction when assessed on a clinical skill of interest. Research also indicates a favorable perception from students towards incorporating the use of videos for the acquisition of clinical skills (Maloney, Storr, Paynter, Morgan, & Ilic, 2013; McAlister, 2014).

Currently, occupational therapy literature does not provide a clear answer of whether video learning may be superior to other instructional methods for learning a specific clinical skill. For example, a mixed methods study by Lysaght and Bent (2005) compared the use of videotaped case studies, face to face interviews, written text, and videotaped content on compact disc read-only memory (CD-ROM) available via online format. Lysaght and Bent (2005) found learning objectives were met for all methods regardless of the method utilized. The focus of the study, however, was clinical reasoning, rather than the development of a specific clinical skill. Consequently, this study will address the comparison of video and written instructional methods. Additionally, the clinical skill of interest will be Kinesio Taping®, as there is no literature available in occupational therapy on the teaching of this skill.

LITERATURE REVIEW

An examination of the literature can provide insight into which instructional methods may be effective in advancing students' clinical skills. The following review will first cover Kinesio Taping® and current teaching methods used in developing proficiency in Kinesio Taping®. This will be followed by an analysis of findings from the use of video instructional methods in developing clinical skills. The comparison of instructional methods and the combined use of instructional methods in teaching skills will then be examined, including findings from other health disciplines. Lastly, student perception regarding instructional methods will be reviewed.

Kinesio Taping®

The Kinesio Taping® Method is a specific type of therapeutic taping which was developed in the 1970's by Dr. Kenzo Kase (Kinesio®, 2016). Its aim is to provide support to muscles, joints, and to reduce inflammation without restricting movement (Kinesio®, 2016). Currently training in Kinesio Taping® is offered through continuing education courses for individuals with a variety of backgrounds including, but not limited to, occupational and physical therapists. Instructors provide in-person teaching and demonstration of assessment and taping techniques. Individuals attending these courses also receive written instruction, and video instruction is additionally available through the Kinesio Tape® website. No current literature exists in occupational therapy for teaching Kinesio Taping®.

Use of Video Instructional Methods

Clinical education and skill development is of interest across health professions. Though many instructional methods exist, one method of increasing interest is video instruction. Several studies in the physical therapy literature found the use of video instruction to be effective for teaching specific clinical skills. Video instruction encompasses instruction provided within a variety of formats, including, but not limited to, CDs, digital versatile discs (DVDs), and podcasts. Smith, Jones, Cavanaugh, Venn, and Wilson (2006)

DOI: 10.26681/jote.2017.010302

compared the use of instructional CDs and face-to-face instruction for teaching clinical skills related to the examination of the knee and ankle/foot to physical therapy students. There was no difference in practical scores for examination of the knee. Practical scores were higher for participants receiving CD instruction for the ankle, leading to the conclusion that the use of CDs were effective for teaching these specific skills (Smith, Jones, Cavanaugh, Venn, & Wilson, 2006). Another study by Ford, Mazzone, and Taylor (2005) compared computer-assisted instruction (i.e. video/audio of the special tests), live demonstration, and written instruction to a control group in learning musculoskeletal special test procedures. The three intervention groups demonstrated increased scores from pretest to posttest as compared to the control group.

Research in occupational therapy is emerging relating to the utilization of video instruction for learning clinical skills. There are two recent studies in occupational therapy that examine the use of video for clinical instruction (Gallagher, Gilligan, & McGrath, 2014; McAlister, 2014). Though there is limited research regarding video instruction used in occupational therapy education, the emerging themes can be analyzed. For example, several studies capture occupational therapy students' preferences regarding the use of video as a stand-alone method. As indicated by the study by Gallagher et al. (2014), students preferred face to face instruction versus video instruction. Despite this, no differences in improvement levels were found between the DVD video instructional group and the face to face instructional group. Another study by Liu, Schneider, and Miyazaki (1997) found similar results in student preferences for in-person learning using simulated patients as compared to videoed simulated patients. In terms of instructional preferences, in-person instruction appears to be preferred as compared to stand-alone video instruction. This contrasts with the results from the use of video as an adjunct method, as these results indicate positive findings for use of supplementary video instruction.

Combined Instructional Methods

When video instructional methods are utilized as an add-on to other instructional methods, outcomes appear favorable. A recent study indicated occupational therapy students found the use of added video instruction valuable for learning manual skills (McAlister, 2014). Findings from other health disciplines indicate positive results from the supplementary use of video instruction. One study examined the supplementary use of video for medical students in learning splinting. Participants in the group receiving the supplementary video instruction had higher scores on skills related to completing splinting procedures (Mehrpour et al., 2013). Another study by van Duijn, Swanick, and Donald (2014) compared instructional methods to teach physical therapy students clinical skills related to the assessment and treatment of the cervical spine. In this study, student performance improved after receiving both online video and face-to-face instruction (van Duijn et al., 2014). A pilot study by Bauer and Huynh (1998) compared CD-ROM instruction, traditional face-to-face instruction, and a combination of both instructional methods in blood pressure measurement. Students displayed overall better adherence to the procedures with the use of combined instructional methods (Bauer & Huynh, 1998). A follow up study by Bauer, Geront, and Huynh (2001) supported the use of combined methods of CD-ROM instruction and in-person instruction. This study did

not find CD-ROM instruction as a stand-alone method to be effective for learning blood pressure measurement procedures, as adherence to blood pressure procedure steps occurred in just 2 of 16 steps (Bauer, Geront, & Huynh, 2001).

In the physical therapy literature, Moore and Smith (2012) utilized a cross-over design to compare lecture and podcasts with lecture and in-person demonstration in teaching physical therapy students transfer and gait training skills. There were no significant differences in scores for the podcast condition as compared to in-person condition. The authors did, however, note neither condition resulted in high examination scores (Moore & Smith, 2012). Regarding student preferences, the authors reported students felt in-person instruction and podcasts were each beneficial for learning with several students suggesting that the use of combined methods may be best for learning (Moore & Smith, 2012).

A systematic review by Byrne, Pugsley, and Hashem (2008) examined multiple instructional methods for teaching clinical skills. Overall, the authors stated there was not enough evidence to draw conclusions regarding the most effective instructional method to teach clinical skills. Additional research is necessary to determine the impact of instructional methods, as well as other factors related to the development of a clinical skill.

It may be that the use of multiple instructional methods, rather than one specific method, is beneficial in developing clinical skills. A literature review by McNett (2012) reviewed multiple instructional methods for teaching nursing students psychomotor skills. Psychomotor skills included clinical skills utilized by nurses, such as vital sign measurement and administration of medications (McNett, 2012). The findings indicated the combination of instructional methods, such as traditional and computer methods, were more effective than methods used in isolation. However, generalizability of the results is limited due to the small sample sizes from a number of the studies in the review.

Student Instructional Preferences

An additional aspect in clinical skill development involves students' learning styles and instructional preferences. Research from French, Cosgriff, and Brown (2007) indicated the variability in learning styles among occupational therapy students. The primary learning preference was kinesthetic learning. Multimodal learning preference followed kinesthetic learning preference. Multimodal learning included visual, auditory, written, and kinesthetic learning combined.

Video instruction is also particularly pertinent as the younger generation of students becomes increasingly adept and interested in using technology. The study by Hills, Ryan, Smith, and Warren-Forward (2012) furthers this point by the suggestion from Generation Y students (born 1980-1994) to incorporate more technology, including the use of videos into instruction. Therefore, it is important to determine if video instruction is a superior instructional method for students in learning a clinical skill.

DOI: 10.26681/jote.2017.010302

In summary, results of video instructional methods used in occupational therapy are limited in generalizability. The evidence in occupational therapy that examines video learning for developing clinical skills varies in terms of the reports of its effectiveness. Evidence suggests favorability in the use of videos as a supplemental aid in learning clinical skills. Additionally, multiple methods of instruction may be more beneficial than the use of one stand-alone method. Multiple methods of instruction may offer a better chance in incorporating more learning styles and can address the variability in students learning preferences.

The purpose of this study was to examine the impact of three different instructional methods in teaching Kinesio Taping® techniques on students' perceived confidence and satisfaction in learning. Confidence and learning satisfaction were measured on a Likert scale ranging from 1-5. Accuracy in applying Kinesio Taping® techniques were measured by a Certified Kinesio Taping Instructor® (CKTI). Instructional methods included in-person, video, and written with picture instruction. The video content was created by the first author of this study utilizing low cost filming equipment. This study was conducted in a university classroom with occupational therapy students. This study was considered exempt by the University Institutional Review Board, as it was an education based study.

There were three main hypotheses for this study. First, students would report higher levels of satisfaction with video instruction as compared to written instruction. Second, students would report higher levels of confidence in applying Kinesio Taping® techniques after receiving supplementary video instruction as compared to written instruction. Lastly, there would be no significant difference between groups in the accuracy in completing taping techniques.

METHODS

Participants

This study included a convenience sample of occupational therapy students from a local university. Exclusion criteria included individuals that had previously taken Kinesio Taping® continuing education courses. All 32 students provided consent to participate in the study.

Research Design

This survey study utilized a two-group cross-over design. The cross-over design of the study allowed both groups to receive all instructional methods. Students were randomized into two groups. Survey data was collected following each instructional method. Both groups received assessment on their accuracy in applying Kinesio Taping® techniques. The sequence of the study can be seen in Table 1. For the first taping technique presented, group one received written with picture instruction and group two received video instruction to assist in practicing a specific taping technique. Data was collected on both groups following instruction and included level of confidence and satisfaction. Satisfaction in this study was measured utilizing a Likert scale from 1-5, by agreement with the statement, "My learning of the technique was improved by this method." For the second taping technique presented, group one received video

instruction and group two received written with picture instruction to assist in practicing a different taping technique. Again, survey data was collected on both groups following instruction regarding level of confidence and satisfaction. This occurred prior to both groups receiving the in-person instruction on each Kinesio Taping® technique. After both groups had received the in-person instruction, data was collected again on participant level of confidence and satisfaction. Participants were then rated on accuracy in applying the Kinesio Taping® techniques by a Certified Kinesio Taping Instructor®. This instructor was also the teacher for the class. Final survey data was collected following the assessment in taping accuracy for the second and final taping technique. These surveys can be found in Appendix A.

In this study, two primary instruments were utilized to assess the impact of the instructional method on learning Kinesio Taping® techniques. These instruments included a Likert scale survey and a Likert scale assessment on the accuracy in the application of Kinesio Taping® techniques.

Table 1

Sequence of Intervention

Group	Instructional Method 1			Instructional Method 2		
1	Written	In-person	Rating	Video	In-person	Rating
2	Video	In-person	Rating	Written	In-person	Rating
Technique:	**Wrist extension**			**Palmar stability**		

Data Analysis

Descriptive data was collected regarding final survey questions including instructional method preferences. Independent t-tests were run to compare groups in satisfaction, confidence levels, and level of accuracy in applying taping techniques. The Mann-Whitney confirmed the results of the t-tests that were run, indicating a normal distribution for the data. This data was used to compare groups and examine findings based on the instructional methods utilized in the study.

RESULTS

A total of 32 students participated in the Kinesio Taping® session which included video, written, and in-person instruction of taping techniques. As shown in Table 2, there was a statistically significant difference in level of confidence ratings for students viewing the video instruction as compared to students viewing the written instruction for the wrist extension assist technique ($t = -2.611$, $p = .014$).

Satisfaction was measured by the survey question, “My learning of the technique was improved by this method.” There was a statistically significant difference for both taping techniques presented. As one can see in Table 3, for the wrist extension assist technique, participants in the video group reported better satisfaction ($M = 4.50$, $SD = .63$), than those in the written group ($M = 3.88$, $SD = .81$), ($p = .021$). Similarly, for the palmar stability technique, participants in the video group reported higher satisfaction ($M = 3.81$, $SD = .83$), than those in the written group ($M = 3.13$, $SD = .62$), ($p = .013$).

DOI: 10.26681/jote.2017.010302

Table 2

Self-Reported Level of Confidence

	n	*M*	*SD*	*t*	*P* (Sig. 2-tailed)
Wrist Extension Assist				-2.611	.014
Video	16	4.13	.72		
Written	16	3.50	.63		
Palmar Stability				1.291	.207
Video	16	3.25	.45		
Written	16	3.00	.63		

Table 3

Self-Reported Learning Satisfaction

	n	*M*	*SD*	*t*	*P* (Sig. 2-tailed)
Wrist Extension Assist				-2.440	.021
Video	16	4.50	.63		
Written	16	3.88	.81		
Palmar Stability				2.647	.013
Video	16	3.81	.83		
Written	16	3.13	.62		

Objective assessment was completed by the instructor after the presentation of each taping technique. As shown in Table 4, there was no significant difference between the groups receiving written versus video instruction in accuracy in completing taping techniques, as assessed by the instructor.

Table 4

Objective Assessment of Accuracy in Taping Applications

	n	*M*	*SD*	*t*	*P* (Sig. 2-tailed)
Wrist Extension Assist				-1.82	.079
Video	16	4.72	.31		
Written	16	4.50	.37		
Palmar Stability				-0.72	.476
Video	16	4.59	.38		
Written	16	4.69	.36		

Most of the students (71.9%) rated “My skill in applying Kinesio Taping® techniques was improved through the use of multiple instructional methods” with a 5 out of 5 (Strongly agree) rating. As seen in Figure 1, regarding general instructional method preference, 59.4% of students preferred the use of multiple instructional methods, 28.1% prefer video instruction, 12.5% preferred in-person demonstration, and no students reported preference for written instruction. Regarding which method students found most beneficial, 40.6% of students stated multiple instructional methods were most beneficial, 31.3% indicated the in-person demonstration was the most beneficial, 25.0% indicated the video method was most beneficial, and 3.1% indicated written instruction was most beneficial (Figure 2). Regarding taping experience, 53.1% of students had previous taping experience (e.g. students received taping instruction in another occupational therapy course).

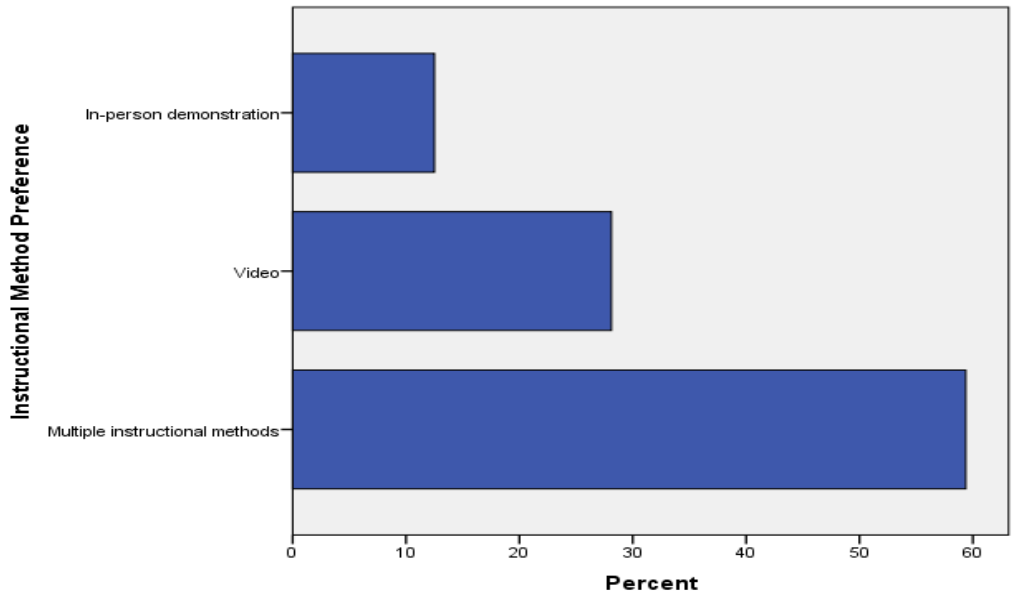

Figure 1. Instructional method preference.

DOI: 10.26681/jote.2017.010302

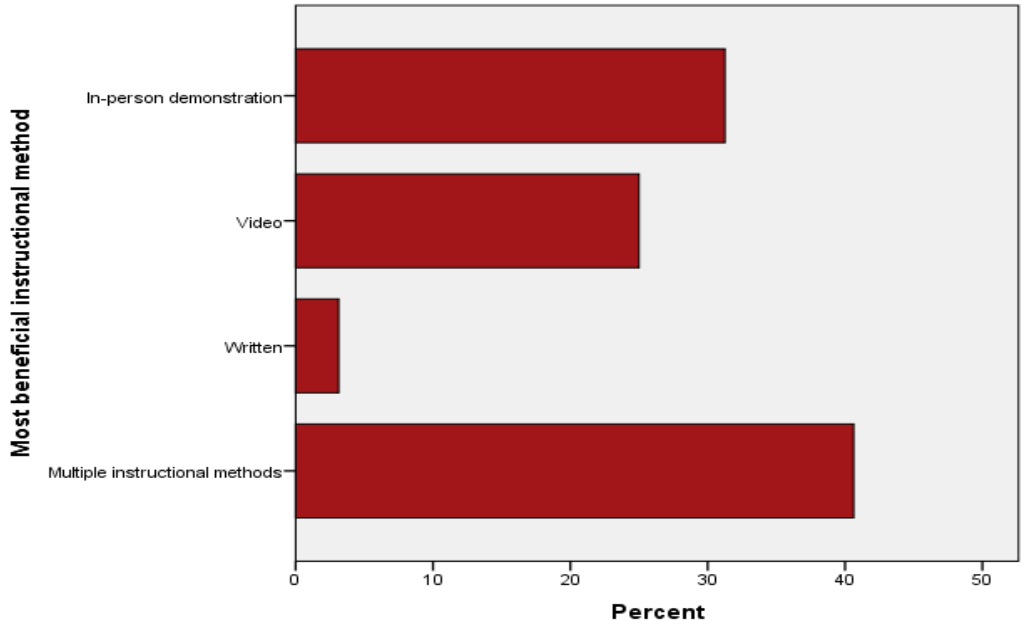

Figure 2. Instructional method reported as most beneficial.

DISCUSSION

This study examined three main hypotheses regarding instruction on Kinesio Taping® techniques. The first hypothesis stated students would report higher levels of confidence in applying Kinesio Taping® techniques following video instruction as compared to written instruction. The results indicated a significant difference in confidence rating for the wrist extension taping technique, but not for the palmar taping technique. One factor that may have impacted these ratings was the difficulty level for each taping technique. For example, if one taping technique was of greater difficulty, confidence levels for all students may have been impacted regardless of the instructional method received. Additionally, the quality and clarity of the video may have varied based on the taping technique.

The second hypothesis stated that students would report higher satisfaction with video instruction as compared to written instruction, measured by stronger agreement with the statement, “My learning of the technique was improved by this method.” There were higher ratings for video instruction for both taping techniques presented. The significant difference in ratings indicates students perceived their learning was improved using video instruction, more than through written instruction. Other studies have indicated a positive impact on learning from the use of video instruction when used as an add-on instructional method (McAlister, 2014; Mehrpour et al., 2013). Research by Bauer and Huynh (1998) and Bauer, Geront, and Huynh (2001) also indicated positive outcomes from the combined use of instructional methods.

The last hypothesis indicated that students would not have any significant difference in accuracy rating in applying the taping techniques. No differences were found in accuracy in applying the techniques regardless of technique or instructional method received.

The surveys provided in the study are informative for understanding preferences and satisfaction with the use of various instructional methods. Most students strongly agreed with the statement, “My skill in applying Kinesio Taping® techniques was improved through the use of multiple instructional methods”. Most students stated multiple instructional methods were the most beneficial (40.6%).

Regarding familiarity with Kinesio Taping®, approximately half of the students in the study had previous taping experience. Some students may have had previous knowledge or limited personal experience with Kinesio Tape®. Our data did not specify to what extent students had previous experience, however a number of students reported having previous experience with taping from a prior occupational therapy course.

No clear conclusions can be made regarding the impact of supplementary video instruction on student confidence, as self-reported confidence was significant in only one of two taping conditions. Students reported higher satisfaction following video instruction in both taping conditions. Although it appears satisfaction was higher for video instruction, there are limitations to consider which may have impacted the results.

Limitations

First, all students received the in-person instruction following either the video or written instruction. This in-person instruction may have impacted ratings in accuracy in applying the techniques, which makes it difficult to clearly observe the impact of written versus video instruction in isolation. This clarification and reinforcement of students’ learning of techniques may also have led to no differences found between groups in terms of taping accuracy. Additionally, students may have observed other students applying the taping techniques, which could have afforded another method of learning separate from the instructional methods assessed in the study. Another limitation is that the taping techniques chosen for the study may have differed in level of difficulty, which may have impacted the results. Video quality is another limitation in this study, as videos were produced with low cost video equipment. This limitation has been noted by other studies, with student comments noting concerns with video quality (Hayden, 2013; McAlister, 2014). The small sample size of this study also limits the generalizability of the results. Additionally, the assessment in accuracy in applying taping techniques was completed by the students’ instructor, which may have introduced bias to the study. Lastly, approximately half the students in the study had previous experience with Kinesio Tape® which may have impacted their level of familiarity with Kinesio Taping® techniques.

DOI: 10.26681/jote.2017.010302

CONCLUSION

This study examined the impact of multiple instructional methods on the learning of Kinesio Taping® techniques. In comparing video and written instructional methods, students reported stronger agreement in learning improvement following video instruction. Students also reported preference for the use of multiple instructional methods. No differences were found in accuracy in applying taping techniques between video and written conditions in this study. Future studies may examine the differences between video, written, and in-person instruction as stand-alone methods. Additionally, future studies may examine clinical reasoning in relation to applying Kinesio Taping® techniques to gather information related to problem solving that is utilized when learning a new clinical skill. Overall, additional research is necessary to determine the impact of instructional method on clinical skill development for occupational therapy students. Instructors may address differences in students' learning styles and preferences using multiple instructional methods for learning and developing clinical skills.

References

Bauer, M., Geront, M., & Huynh, M. (2001). Teaching blood pressure measurement: CD-ROM versus conventional classroom instruction. *Journal of Nursing Education, 40*(3), 138-141. https://doi.org/10.3928/0148-4834-20010301-10

Bauer, M. D., & Huynh, M. V. (1998). Nursing students' blood pressure measurement following CD-ROM and conventional classroom instruction: A pilot study. *International Journal of Medical Informatics, 50*, 103-109. https://doi.org/10.1016/S1386-5056(98)00072-0

Byrne, A. J., Pugsley, L., & Hashem, M. A. (2008). Review of comparative studies of clinical skills training. *Medical Teacher, 30*(8), 764-767. https://doi.org/10.1080/01421590802279587

Ford, G. S., Mazzone, M. A., & Taylor, K. (2005). Effect of computer-assisted instruction versus traditional modes of instruction on student learning of musculoskeletal special tests. *Journal of Physical Therapy Education, 19*(2), 22-30. Retrieved from https://aptaeducation.org/members/jopte/

French, G., Cosgriff, T., & Brown, T. (2007). Learning style preferences of Australian occupational therapy students. *Australian Occupational Therapy Journal, 54*, S58-S65. https://doi.org/10.1111/j.1440-1630.2007.00723.x

Gallagher, A. M., Gilligan, R., & McGrath, M. (2014). The effect of DVD training on the competence of occupational therapy students in manual handling: A pilot study. *International Journal of Therapy and Rehabilitation, 21*(12), 575-583. https://doi.org/10.12968/ijtr.2014.21.12.575

Hayden, C. L. (2013). Online learning of safe patient transfers in occupational therapy education. *The Open Journal of Occupational Therapy*, *1*(2), Article 7. https://doi.org/10.15453/2168-6408.1021

Hills, C., Ryan, S., Smith, D. R., & Warren-Forward, H. (2012). The impact of 'Generation Y' occupational therapy students on practice education. *Australian Occupational Therapy Journal, 59*, 156-163. https://doi.org/10.1111/j.1440-1630.2011.00984.x

Kinesio®. (2016). *What is Kinesio Tape*®. Retrieved from https://kinesiotaping.com/about/what-is-kinesio-tape/

Liu, L., Schneider, P., & Miyazaki, M. (1997). The effectiveness of using simulated patients versus videotapes of simulated patients to teach clinical skills to occupational and physical therapy students. *Occupational Therapy Journal of Research, 17*(3), 159-172. https://doi.org/10.1177/153944929701700301

Lysaght, R., & Bent, M. (2005). A comparative analysis of case presentation modalities used in clinical reasoning course-work in occupational therapy. *American Journal of Occupational Therapy, 59*, 314-324. https://doi.org/10.5014/ajot.59.3.314

Maloney, S., Storr, M., Paynter, S., Morgan, P., & Ilic, D. (2013). Investigating the efficacy of practical skill teaching: A pilot-study comparing three educational methods. *Advances in Health Sciences Education, 18*, 71-80. https://doi.org/10.1007/s10459-012-9355-2

McAlister, R. B. (2014). Conference proceeding: Use of instructor-produced YouTube® videos to supplement manual skills in occupational therapy education. *American Journal of Occupational Therapy, 68*, S67-S72. https://doi.org/10.5014/ajot.2014.685S04

McNett, S. (2012). Teaching nursing psychomotor skills in a fundamentals laboratory. *Nursing Education Perspectives, 33*(5), 328-333. https://doi.org/10.5480/1536-5026-33.5.328

Mehrpour, S. R., Aghamirsalim, M., Motamedi, S. M. K., Larijani, F. A., & Sorbi, R. (2013). A supplemental video tool enhances splinting skills. *Clinical Orthopaedics and Related Research, 471*(2), 649-654. https://doi.org/10.1007/s11999-012-2638-3

Moore, W. A., & Smith, A. R. (2012). Effects of video podcasting on psychomotor and cognitive performance, attitudes and study behaviour of student physical therapists. *Innovations in Education and Teaching International, 49*(4), 401-414. https://doi.org/10.1080/14703297.2012.728876

Pan, M., Harcharik, S., Luber, A., Bernardo, S., Levitt, J., & Moskalenko, M. (2014). Instructional video for teaching venipuncture. *The Clinical Teacher, 11*, 436-441. https://doi.org/10.1111/tct.12198

Smith, A. R., Jr., Jones, J., Cavanaugh, C., Venn, J., & Wilson, W. (2006). Effect of interactive multimedia on basic clinical psychomotor skill performance by physical therapist students. *Journal of Physical Therapy Education, 20*(2), 61-67. Retrieved from https://aptaeducation.org/members/jopte/

van Duijn, A. J., Swanick, K., & Donald, E. K. (2014). Student learning of cervical psychomotor skills via online video instruction versus traditional face-to-face instruction. *Journal of Physical Therapy Education, 28*(1), 94-102. Retrieved from https://aptaeducation.org/members/jopte/

DOI: 10.26681/jote.2017.010302

Appendix A

Surveys

Group 1

Survey questions following written instruction

Wrist extension technique

1. My level of confidence in applying/using this Kinesio taping® technique:

No confidence 1 2 3 4 5 Highly confident

2. My learning of the technique was improved by this method:

Strongly disagree 1 2 3 4 5 Strongly agree

Group 1

Survey questions following in-person instruction

Wrist extension technique

1. My level of confidence in applying/using this Kinesio taping® technique:

No confidence 1 2 3 4 5 Highly confident

2. My learning of the technique was improved by this method:

Strongly disagree 1 2 3 4 5 Strongly agree

Group 1

Objective assessment by instructor:

Wrist extension technique

1=Inaccurate 2=mostly inaccurate 3=somewhat accurate 4=mostly accurate 5=accurate
*objective assessment is based on a .5 scale

Group 1

Survey questions following video instruction

Palmar stability technique

1. My level of confidence in applying/using this Kinesio taping® technique:

No confidence 1 2 3 4 5 Highly confident

2. My learning of the technique was improved by this method:

Strongly disagree 1 2 3 4 5 Strongly agree

Group 1

Survey questions following in-person instruction

Palmar stability

1. My level of confidence in applying/using this Kinesio taping® technique:

No confidence 1 2 3 4 5 Highly confident

2. My learning of the technique was improved by this method:

Strongly disagree 1 2 3 4 5 Strongly agree

Group 1

Objective assessment by instructor:

Palmar stability technique

1=Inaccurate 2=mostly inaccurate 3=somewhat accurate 4=mostly accurate 5=accurate
*objective assessment is based on .5 scale

https://encompass.eku.edu/jote/vol1/iss3/2
DOI: 10.26681/jote.2017.010302

Group 1

Survey questions following the completion of all instructional methods

1. My skill in applying Kinesio taping® techniques was improved through the use of multiple instructional methods:

Strongly disagree 1 2 3 4 5 Strongly agree

2. My preferred learning method (Please circle):
In-person demonstration Video Written Multiple instructional methods

3. Which method did you find the most beneficial? (Please circle):
In-person demonstration Video Written Multiple instructional methods

4. I found this method to be most beneficial because:
_____
_____
_____

5. I would feel comfortable learning __number of taping techniques within one learning session:
1 2 3 4 5 6 or more

6. Additional comments regarding instructional methods used in this study:
_____
_____
_____

7. Do you have any previous experience Kinesio taping®? Yes No

Group 2

Survey questions following video instruction

Wrist extension technique

1. My level of confidence in applying/using this Kinesio taping® technique:

No confidence 1 2 3 4 5 Highly confident

2. My learning of the technique was improved by this method:

Strongly disagree 1 2 3 4 5 Strongly agree

Group 2

Survey questions following in-person instruction

Wrist extension technique

1. My level of confidence in applying/using this Kinesio taping® technique:

No confidence 1 2 3 4 5 Highly confident

2. My learning of the technique was improved by this method:

Strongly disagree 1 2 3 4 5 Strongly agree

Group 2

Objective assessment by instructor:

Wrist extension technique

1=Inaccurate 2=mostly inaccurate 3=somewhat accurate 4=mostly accurate 5=accurate
*objective assessment is based on .5 scale

DOI: 10.26681/jote.2017.010302

Group 2

Survey questions following written instruction

Palmar stability technique

1. My level of confidence in applying/using this Kinesio taping® technique:

No confidence 1 2 3 4 5 Highly confident

2. My learning of the technique was improved by this method:

Strongly disagree 1 2 3 4 5 Strongly agree

Group 2

Survey questions following in-person instruction

Palmar stability technique

1. My level of confidence in applying/using this Kinesio taping® technique:

No confidence 1 2 3 4 5 Highly confident

2. My learning of the technique was improved by this method:

Strongly disagree 1 2 3 4 5 Strongly agree

Group 2

Objective assessment by instructor:

Palmar stability technique

1=Inaccurate 2=mostly inaccurate 3=somewhat accurate 4=mostly accurate 5=accurate
*objective assessment is based on .5 scale

Group 2

Survey questions following the completion of all instructional methods

1. My skill in applying Kinesio taping® techniques was improved through the use of multiple instructional methods:

Strongly disagree 1 2 3 4 5 Strongly agree

2. My preferred learning method (Please circle):
In-person demonstration Video Written Multiple instructional methods

3. Which method did you find the most beneficial? (Please circle):
In-person demonstration Video Written Multiple instructional methods

4. I found this method to be most beneficial because:
_____
_____
_____

5. I would feel comfortable learning __number of taping techniques within one learning session:
1 2 3 4 5 6 or more

6. Additional comments regarding instructional methods used in this study:
_____
_____
_____

7. Do you have any previous experience Kinesio taping®? Yes No

DOI: 10.26681/jote.2017.010302